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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,817	06/21/2001	Brent William Jacobs	ROC920010098US1	6857
31647	7590	11/26/2004	EXAMINER	
DUGAN & DUGAN, P.C. 55 SOUTH BROADWAY TARRYTOWN, NY 10591			ANDERSON, MATTHEW D	
			ART UNIT	PAPER NUMBER
			2186	

DATE MAILED: 11/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/886,817

Applicant(s)

JACOBS, BRENT WILLIAM

Examiner

Matthew D. Anderson

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-4, 8-11, and 15, drawn to allocating non-pinned memory requests from the first boundary and allocating pinned memory requests from the second boundary, classified in class 711, subclass 170.
  - II. Claims 5 and 12, drawn to determining that there is no hole in the pinned region that accommodates the received pinned memory request; determining that the free region is not large enough to accommodate the pinned memory request; widening the free region by moving a non-pinned memory block from an end of the non-pinned region adjacent the free region to a hole in the pinned region; and allocating the received pinned memory request to the widened free region, classified in class 711, subclass 171.
  - III. Claims 6-7 and 13-14, drawn to determining that there is a non-pinned memory block located in the pinned region that occupies a hole at least as large as the received pinned memory request; moving said non-pinned memory block located in the pinned region to free said hole that is at least as large as the received pinned memory request; and allocating the received pinned memory request to said freed hole that is at least as large as the received pinned memory request, classified in class 711, subclass 165.

- IV. Claims 16-20, drawn to responding to a non-pinned memory allocation request by allocating free space from the non-pinned region first, from the free region second and from the pinned region last; and responding to a pinned memory request only by one of: (a) allocating space from a hole in the pinned region or (b) allocating free space from the free region, classified in class 711, subclass 170.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as invention I does not require determining if the free region is large enough and widening the free region. See MPEP § 806.05(d).
3. Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as invention I does not require determining if there is a non-pinned block in the pinned region large enough for the pinned request and moving the non-pinned block. See MPEP § 806.05(d).
4. Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as invention II does not require determining if there is a non-pinned block in the pinned region large enough for the pinned request and moving the non-pinned block. See MPEP § 806.05(d).

Art Unit: 2186

5. Inventions IV and I-III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention IV has separate utility such as the other inventions do not require the ordering of allocation requests. See MPEP § 806.05(d).

6. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Groups I, III, or IV, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Groups I, II, or IV, restriction for examination purposes as indicated is proper.

8. Because these inventions are distinct for the reasons given above and the search required for Group IV is not required for Groups I-III, restriction for examination purposes as indicated is proper.

9. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Anderson whose telephone number is (571) 272-4177. The examiner can normally be reached on Monday-Friday, 2nd Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew M. Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Matthew D. Anderson  
Primary Examiner  
Art Unit 2186